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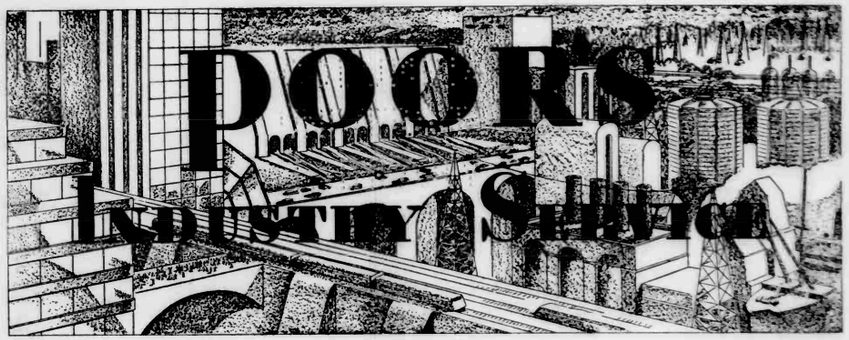

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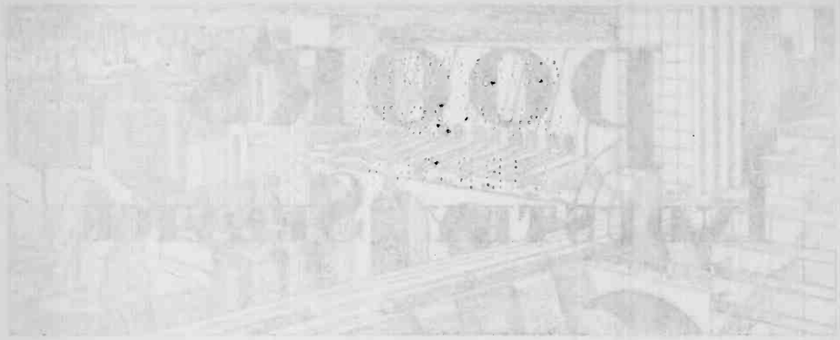

Business

The following original study has been directed and edited by Paul B. Coffman of the Harvard Graduate School of Business.

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The Baking Industry

Conclusions and Outlook

Bread and Cake Division

Until 1929 the bread and cake division of the Baking Industry expanded rapidly: an ever increasing number of families were weaned from home baking; cake and pastries were merchandized aggressively; the flood tide of the public demand for convenience, time-saving, and variety was wholly beneficial to the division. Buttressed by the knowledge that the depression of 1921 improved rather than harmed its earnings, the industry faced the future with equanimity. The awakening was rapid. Promptly in 1930 earnings turned downward; as the depression deepened they continued to fall. The contrast with 1921 at once raises the questions: What new factors have appeared? Are they likely to continue after business returns to more normal levels?

The bread and cake division is unusual: prospects for the industry as a whole differ markedly from those for individual large units. The primary factor determining the long-term future of an industry is the trend of demand for its products: in this respect the baking industry occupies an essentially sound position. The sharp expansion of commercial baking the past has resulted both from the growth of population and from the shift from the practice of baking in the home: the continuance of either or both these trends will provide a gradually expanding market. It is highly improbable that the 1920-1930 rate of growth will be maintained: the rate of population increase is declining and a large proportion of the urban market, in which conditions favor the commercial baker, has already been tapped. Unless the American standard of living, however, with its emphasis on convenience and labor-saving and its thorough-going acceptance of trade-marked, packaged merchandise, is violently changed, the industry as a whole should not suffer from a stagnant or declining market for many years.

Within this favorable framework, however, we conclude that both short and long-term prospects for the large wholesale bakers are not encouraging. Earnings of the four leading bread and cake bakers in 1932 were but a third of the average earnings in the three years 1927-1929: the reduction of expenses in proportion to the decline in prices and volume has proved impossible. Improved purchasing power and a generally rising price level will correct this difficulty and earnings should rise somewhat: we doubt if they will soon reach pre-depression levels. Competition is keen and gives promise of remaining so: the competitive advantages of the large wholesale baking concern are not marked. Such concerns are faced with the competition of grocery chain bakeries, local independents with large plants, and small retail bakers. In competition with the last of these, the large wholesale baker has two definite advantages: (1) Costs are lower and greater standardization of product is possible; (2) Demand may be developed by advertising trade-marked, wrapped merchandise. Against the bakeries of large independents and the grocery chains, the first advantage is non-existent and the second greatly reduced in importance. There is little doubt that the chain which is large enough to dispose of the output of a bakery of the most efficient size can compete on an even basis with the wholesale baker in regard to manufacturing costs while in respect to delivery expense, a major item in cost, it has a distinct advantage. It appears highly probable that the grocery chains will continue to expand their proportion of the food business for some time to come, while the organization of independent grocers into voluntary chains, which are rapidly coming to resemble corporate chains in methods of operation, may well result in increased difficulties for the wholesale bakers. Moreover, greatly expanded capacity has intensified competition between wholesale bakers; extremely strong companies, pursuing aggressive merchandising policies, will continue to secure reasonable earnings; others will fare less well.

Cracker and Biscuit Bakers

In sharp contrast, the strength of the cracker and biscuit division appears unimpaired. The demand for its products, both in the aggregate and per capita, has been growing for a number of years—the depression has reduced consumption much less than might have been expected. For the future, continued growth, although undoubtedly at a slower rate, seems assured. Three large companies dominate the division: competition, although keen, has not been unreasonable. In 1932, earnings were but 29% below the peak. The two long-established companies in particular demonstrated their strength. The organization of a third major company in 1926 eventually may lead to increased intensity in the struggle for busi-

ness, but little evidence of this development has thus far appeared. Competition from outside concerns is not a present problem: (1) Trade-marked, packaged products are the bulwark of profits—these the major companies control. (2) The scale of operations necessary for profitable business is large: grocery chains have been content not to invade this field. We see little likelihood of a change in these trends.

A program of diversification in the food field outside the boundaries of the Baking Industry characterized the policies of National Biscuit Company and Loose-Wiles Biscuit Company in the years just prior to 1932. This program undoubtedly was motivated by the feeling that the rate of earnings increase could not be maintained if activities were restricted to the biscuit business. The firms acquired had products of proved consumer acceptance and excellent earnings records: maintenance of that position, as with the original products of the division, largely depends on continued advertising and promotional activities.

INTRODUCTION

The Baking Industry is composed of a number of large companies and many thousand small concerns. To best serve the purpose of which these studies are designed, the approach taken is that of the large companies; the small firms are treated only in respect to the competition which they offer to companies of general interest.

Because of significant differences in characteristics and problems, two divisions of the Baking Industry must be clearly distinguished: (1) the bread and cake bakers; (2) the biscuit and cracker bakers. The characteristics which differentiate these branches, discussed in more detail in later sections may be summarized as follows:

1. Biscuits and crackers are much less perishable than bread and cake.
2. Biscuits and crackers are produced in plants operating on a much larger scale than bread and cake bakeries.
3. Larger expenditures of capital are necessary in the biscuit and cracker division.
4. Large concerns in the biscuit branch control a very much greater proportion of the business than in the bread and cake branch.
5. Commercial baking may be entered with a relatively small amount of capital.
6. Public opinion and Governmental attitude are particularly sensitive in regard to developments in the industry.

THE BREAD AND CAKE DIVISION

Significant Characteristics of the Division

The commercial bakery deals in a commodity to which the characterization of basic may aptly be applied. Bread is a staple item, yielding high energy returns in relation to its cost; recent studies indicate that it has retained much of its traditional place in the American diet. Since 1919, the baking industry has ranked as a billion dollar industry and, by 1929, it had passed the half way mark toward the second billion. In value of output, the industry has taken its place among the ten leading industries of the country. Next to meat packing, the baking industry is quantitatively the most important food industry, yet commercial baking differs in a number of respects from some or all other branches of the food industry:

1. Competition is of three types:
   a. Between bakery products and other foods.
   b. Between commercial and home baking.
   c. Between commercial bakers, i. e., wholesale bakers, retail bakers, and chain store bakers.
2. Bread and cake are perishable products, requiring elaborate delivery methods and sharply limiting the area which may be served by a single plant.
3. Commercial baking is conducted almost entirely on a cash basis with an extremely rapid merchandise turnover.
4. In spite of the rapid growth of large organizations in the last few years, commercial baking is still preponderantly carried on by small-scale enterprises.

Home Baking vs. Commercial Baking

The competition faced by the commercial baker is not only that of other foods and other bakers, but also that of his customers. A very large proportion of those customers may bake in their homes virtually at a moment's notice—the raw materials may be purchased readily and conveniently—the equipment necessary is present in nearly every household. Although estimates vary, the best evidence suggests that 40%-50% of the total bread consumed is still baked at home, and an even larger proportion, 75%-80%, of cake and pastry. That so much home baking is done, suggests that a tremendous market exists which has not yet been exploited. One factor, however, sharply modifies this conclusion. The proportion secured by commercial bakers differs markedly in rural and urban communities; thus, in one study it was found that half or more of the bread was home baked in 35% of the families in cities of more than 25,000 population, in 49% of the families in cities of 5,000 to 25,000, in 56% of the families in towns of less than 5,000, and in 94% of "farm families." Rural and "farm families" for the most part cannot profitably be served by commercial bakers. Thus, the total market yet to be developed in urban areas is very much less than 50% of the total.

Similarly, the consumption of commercial bread is affected by income levels and is much smaller among the foreign born. Income apparently affects the consumption of bread, whether home or commercially baked. Thus, one study found that bread consumption was as follows:

	Well-to-do	Middle	Poor
Loaves per week per person	1.97	2.52	2.64

Source: Pennsylvania Department of Agriculture.

This evidence coincides with the relative low-cost standing of bread as an energy producing food, and serves to explain the relative stability of the poundage sales of bread during the past three years.

Types of Competition

The internal competition within the industry is between wholesale bakers, retail bakers, and chain store bakers. Wholesale bakers sell in relatively large quantities to grocers and other establishments for resale to ultimate consumers. Wholesale bread plants produce all the way from a few hundred thousand to many million pounds per annum. Retail bakers dispose of their product by direct sale to consumers, and may be divided into two classes:

1. House-to-house.
2. Over-the-counter.

The latter are usually small bakers; the former may often be large producers. In a study by the Federal Trade Commission, it was found that 75% of the large bakers were wholesalers exclusively, 18% combined wholesale and house-to-house selling, and 7% concentrated on the latter.

The chain store baker is essentially a combination of a wholesaler and an over-the-counter retailer. Operations are ordinarily on a large scale and the competition the baking companies receive from this source is very real. It is discussed in more detail on page 13.

GROWTH OF COMMERCIAL BAKING

Baking has been an activity of the human race since earliest times, but its development on a commercial scale dates from the middle of the last century. Although the baker was a familiar figure in the middle ages, he ordinarily carried on a custom business, that is, dough was brought to his ovens for baking much as grain was brought to the mill for grinding into flour.

Since the middle decade of the last century, however, commercial baking has been increasing steadily. In 1849, the total value of the products of commercial bakeries was slightly more than $13,000,000; by 1929, it had increased to more than $1,500,000,000. As indicated in Exhibit I, the increase was particularly sharp between 1914 and 1919. Some of these changes are related to changes in the price level: Exhibit II presents especially significant figures in which adjustment is made for the changes in the level of prices. Consumption of bakery products per capita has risen

EXHIBIT I

ANNUAL VALUE OF BREAD AND OTHER BAKERY PRODUCTS

1849–1931

Dollar Totals in Thousands

Year	Value	Per cent of Preceding Year
1849	$13,294	...
1859	16,980	128
1869	36,908	219
1879	65,825	179
1889	128,422	195
1899	175,369	137
1904	269,583	154
1909	396,865	148
1914	491,893	124
1919	1,151,896	235
1921	1,089,972	94
1923	1,122,906	104
1925	1,268,195	112
1927	1,394,700	110
1929	1,526,111	110
1931	1,189,228	78

Source: Census of Manufactures.

EXHIBIT II

PER CAPITA CONSUMPTION OF BAKERY PRODUCTS

1860–1931

Year Ending		Value of Bakery Products (000 omitted)	Value Per Capita	*Wholesale Price Index (1926=100)	Value Per Capita on 1926 Price Level
May:	1860	$16,980	$0.55	63.8	$0.78
	1870	29,526	0.77	97.1	0.79
	1880	65,825	1.33	66.1	2.01
	1890	128,422	2.06	55.5	3.73
	1900	175,369	2.33	50.8	4.59
Dec.:	1904	269,583	3.26	54.0	6.03
	1909	396,865	4.38	62.6	6.99
	1914	491,893	5.02	64.7	7.75
	1919	1,151,896	10.97	129.5	8.47
	1921	1,089,972	10.11	90.6	11.16
	1923	1,122,906	10.15	92.7	10.95
	1925	1,268,195	10.99	100.2	10.98
	1927	1,377,731	11.61	96.7	12.00
	1929	1,526,111	12.55	99.9	12.56
	1931	1,189,228	9.58	74.6	12.84

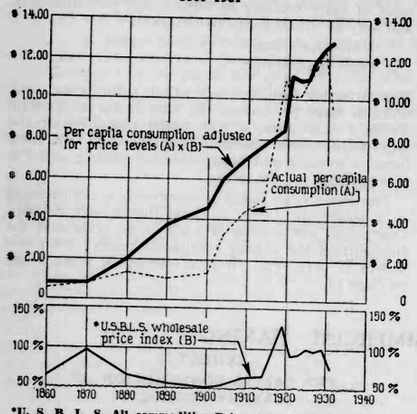
*U. S. B. L. S. All Commodities Price Index 1860-80. U. S. B. L. S. Foods Price Index 1890-date.

Source: The American Baking Industry—By Hazel Kyrk, Ph. D. and Joseph S. Davis, Ph. D. Food Research Institute—Stanford University (1860-1923 inclusive). Bureau of Foreign and Domestic Commerce (1925 and 1927). Poor's Computation (1929 and 1931).

EXHIBIT III

ACTUAL AND ADJUSTED PER CAPITA CONSUMPTION OF BAKERY PRODUCTS IN DOLLARS

1860–1931



*U. S. B. L. S. All commodities Price Index; 1860-80; U. S. B. L. S. Foods Price Index 1890-date.

from $0.78 in 1859 to $12.56 in 1929, an increase of more than 2000%. This increased per capita consumption of bakery products is explained by several factors:

1. The increase in urban population with its coincident changes in social habits.
2. The increase in the number of women gainfully employed.
3. The improvement in bakery methods, including wrapping and rapid delivery.
4. The increase in the demand for convenience and time saving.

The results of the changes have been felt by all branches of the food industry—for some the changes have been profitable, for others unprofitable. In general, the baking industry has been a beneficiary and much of its future growth will be conditioned by the continuance of these influences. Of these factors, the proportion of the population which may be classified as urban is undoubtedly the most important (see Exhibit IV). It is in the cities that commercial baking has really grown.

EXHIBIT IV

GROWTH OF URBAN POPULATION

1880–1930

000 omitted

Year	Total Population	Urban Population	Percentage Urban
1880	50,155	14,358	28.6
1890	62,947	22,298	35.4
1900	75,994	30,380	40.0
1910	91,972	42,166	45.8
1920	105,710	54,304	52.3
1930	122,775	68,954	56.2

Source: U. S. Department of Commerce—Bureau of the Census.

EXHIBIT V

GROWTH OF URBAN POPULATION

1880–1930

Unit: 1,000,000

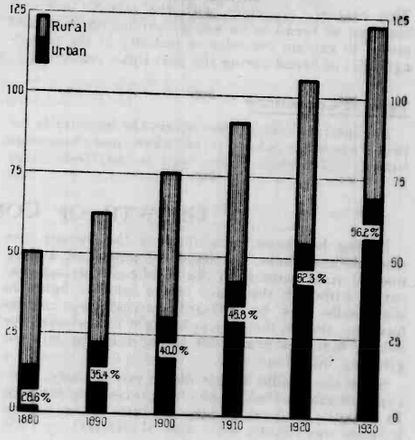


EXHIBIT VI

PER CAPITA CONSUMPTION OF FLOUR

1879–1932

Unit: one pound

Year	Wheat Flour	Rye Flour	Corn Meal
1879	226.4	*	*
1889	223.9	6.77	117.0
1899	222.2	4.55	103.3
1904	221.9	*	76.4
1909	209.7	3.43	57.8
1914	209.1	*	41.2
1919	195.4	2.45	25.3
1921	172.8	2.31	25.5
1923	173.5	2.53	27.2
1924	182.7	*	*
1925	177.0	2.65	22.7
1926	180.7	*	*
1927	171.5	2.79	22.3
1928	180.4	*	*
1929	175.4	2.71	17.7
1930	173.5	*	*
1931	160.6	*	*
1932	*	*	*

*Not available.

Source: Bureau of Foreign and Domestic Commerce.

EXHIBIT VII

COMPARATIVE GROWTH OF BAKING INDUSTRY AND ALL MANUFACTURING INDUSTRIES

1849–1929

Unit: $1,000,000

Year	All Manufacturing Industries	Baking Industry
1849	$1,010	$13
1859	1,880	16
1869	3,380	36
1879	5,370	65
1889	9,370	128
1899	13,000	175
1909	20,670	396
1919	62,040	1,151
1929	70,430	1,526

Source: U. S. Department of Commerce—Census of Manufactures.

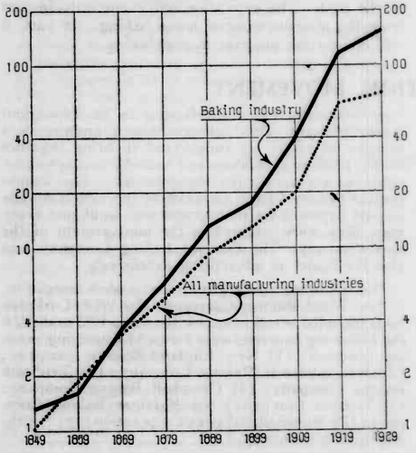
EXHIBIT VIII

GROWTH OF BAKING INDUSTRY COMPARED WITH ALL MANUFACTURING INDUSTRIES

1849–1929

Unit for Baking: $10,000,000

Unit for all Manufacturing Industries: $1,000,000,000



It should be noted that throughout the entire period of rapid growth since 1900, the baking industry has been faced with a slowly declining per capita consumption of wheat products. In 1900, the annual per capita consumption of wheat was 5.6 bushels and of flour, 1.147 barrels; in the period 1909-1913, annual wheat consumption declined to 5.0 bushels per capita; during the last decade it has apparently stabilized around 4.2 bushels per capita. Several factors have undoubtedly contributed to this decline:

1. Increased mechanization of industry has lessened the expenditure of human energy and the demand for energy foods.
2. The dietetic value of green vegetables and fruits (fresh and canned) has been widely stressed.
3. A rising standard of living and improved transportation has created a demand for greater variety in the diet and has provided the means of satisfying that demand.
4. During the World War, people became acquainted with numerous substitutes for wheat products.

EXHIBIT IX

GROWTH IN SIZE OF BAKING PLANTS

1849–1931

Year	No. of Establishments	Sales Per Establishment	No. of Wage Earners	Number of Wage Earners Per Establishment	Output Per Wage Earner
1849	2,027	$6,500	6,727	3.2%	$1,960
1859	1,930	8,700	6,514	3.4	2,550
1869	3,550	10,200	14,126	4.0	2,550
1879	6,396	10,800	22,488	3.6	3,000
1889	10,484	12,400	38,841	3.7	3,350
1899	14,836	11,800	60,192	4.1	2,900
1904	18,226	14,800	81,278	4.5	3,300
1909	23,926	16,800	100,216	4.2	4,000
1914	25,963	19,000	124,052	4.8	4,000
1919	25,095	45,000	141,592	5.7	8,100
1921	*20,173	54,000	148,500	7.4	7,300
1923	18,739	60,000	162,613	8.7	6,900
1925	17,684	72,000	160,411	9.1	7,900
1927	18,129	77,000	171,995	9.5	8,100
1929	20,785	74,000	200,841	9.7	7,600
1931	17,714	67,000	183,000	10.4	6,500

*Much of this decrease was due to change in classification whereby establishments with sales of less than $5,000 were omitted.

Source: United States Census of Manufactures.

The baking industry has not as yet been affected in its expansion by this trend, but, as the proportion of commercially baked bread increases, the effect may be felt with increasing vigor.

Commercial baking has grown more rapidly than manufacturing industries in general, and, since 1870, the percentage rate of growth has been fairly uniform (see Exhibit VII). At no time during this period was there a decline. Indeed, there is good evidence that with the exception of the present period commercial baking has continued to grow, although at a much diminished rate, even in periods of general business depression. On the other hand, during periods of great general business prosperity, the growth of commercial baking has not been greatly

accelerated. Thus, the relative stability of the industry clearly has been one of its outstanding characteristics.

The number of establishments has increased at a somewhat slower rate, and the production per establishment has remained much smaller than in many industries. In 1849, there were 2,027 establishments, employing 6,727 wage earners or 3.2 per establishment. The average annual sales per establishment were $6,500; per wage earner, $1,960. In 1929, there were 20,785 establishments, employing 200,841 wage earners or 9.7 per establishment. The average annual output per establishment was $74,000; per wage earner, $7,600, (see Exhibit IX).

It is clear, therefore, that the baking industry remains largely localized with operations on a relatively small scale. Even the major companies, whose sales run into the millions, require a large number of plants to secure this volume.

The Outlook for Expansion

Constancy of per capita consumption is a characteristic of many staple foods, and sets the industries producing them apart from most other manufacturing. In man's appetite and food requirements, there is a natural limit to the expansion of the consumption of staples. Thus, the consumption of bakers' bread can increase in only four ways:

1. By increase in population.
2. By transfer of baking from the household to the bakery.
3. By changes in food habits, which are resisted by a people as a whole with great obstinacy.
4. By changes in the purchasing power of consumers.

The increase in population in the United States is clearly occurring at a decreasing rate—due primarily to the cessation of immigration and, secondarily, to a trend toward smaller families. More important for the baking industry is the trend toward urbanization, concerning which there is at present much doubt. Industrial unemployment has returned many to the farms but this movement seems temporary rather than permanent. Perhaps the safest conclusion is that for the next few decades urbanization will continue at a decreasing rate.

In the transfer of baking from the household, there is also likely to be a decline in the rate. The urban population already has been largely transferred to the use of bakery products—the problem of distribution to rural population remains largely unsolved even by the rapid improvement in transportation equipment.

For the near future, there seem to be fairly definite indications that the expansion of commercial baking does not promise to be as rapid, in relative terms, as in the past. The expansion will come only in part from the abandonment of home baking. In part, it will come from increase in population.

The Consolidation Movement

The preceding sections have dealt with the bread and cake division as a whole. Since it is the consolidation movement of the last twenty years which has lifted certain baking concerns to a size warranting investment interest, this development is reviewed in some detail.

Combination was not the method of growth of the concerns that early developed to appreciable size. They grew largely by new plant construction, sometimes also by purchase of competitors or of a plant in a new territory they desired to enter. They did not combine until about twenty-five years ago. The earliest consolidations were of bakeries competing in the same market. Thus, in 1907, the American Bakery Company of St. Louis brought together seven of the leading establishments of that city. Two years later, in 1909, Consumers Bread Company was organized, consolidating seven bakeries in Kansas City. In 1910, the Shults Bread Company, a merger of twelve concerns operating in the metropolitan New York area, was formed. These three consolidations were distinctly local in character, the constituent members being either actual or potential competitors with one another. While this is true of a few of the later combinations, the movement after 1910 was characterized by the combination of plants located in different cities rather than by the merging of concerns operating in a single city.

The General Baking Company was formed in 1911 by combining twenty-one companies located in seventeen different cities from Boston to St. Louis and New Orleans. This concern was a pioneer in a number of ways. It endeavored to bring together some of the most modern and soundly managed concerns in the respective communities. The former owners acquired large interests in the new company as part payment for their properties; in almost every case, they were retained in the management of the new company. The General Baking Company was also the leader in advertising extensively.

The following year eight concerns were merged into the Ward Baking Company. In 1914, Cushman Sons included seven bakeries. Between 1915 and 1924, the following concerns were formed by merging existing concerns: (1) New England Bakery Company; (2) Massachusetts Baking Company; (3) Tri-State Baking Company; (4) Campbell Baking Company; (5) Gordon Company; (6) Nafziger Baking Company; (7) Standard Bakeries Corporation; (8) Southern Baking Company.

In 1921, the United Bakeries Corporation began the process of reconsolidating some of the earlier mergers—culminating in the formation of the Continental Baking Corporation and the attempted merging of Ward, General and Continental into the Ward Food Products Corporation. The attitude of the Government and public at the time of this proposal is so indicative of what may be expected in the future of the industry as to deserve special attention.

Governmental and Public Attitude

The foodstuffs industry has always been carefully observed by Governments. In medieval days, the regulation of the traders in foodstuffs was universally retained by Government in contrast to other trades, in which the guild assumed that function. In modern times, the slightest threat of monopoly in any division of the industry has been enough to arouse the keenest scrutiny of Government and public. In no situation has this been more clearly demonstrated than in the attempt of William B. Ward in 1925 to combine the Ward, General and Continental companies into a single unit. Admittedly, these three large concerns controlled less than 20% of the commercial bread production, a much smaller proportion than that obtained by numerous concerns in other fields which the Government has not seen fit to attack. Yet the action of the Government was swift and sure, and on April 3, 1926, a Consent Decree was entered in the District Court of the U. S. for the District of Maryland, which, in part, provided that:

1. "The individual defendants and corporate defendants are perpetually restrained and enjoined from any act that would bring the several defendants under common control or that would restrain or monopolize interstate trade in the future.
2. "The corporate defendants are perpetually enjoined from acquiring the whole or any part of the share capital of any other baking corporation engaged in interstate commerce, where the effect of such acquisition may be to substantially lessen competition in such commerce between the corporation whose stock is so acquired and the defendant corporations or tend to create a monopoly.
3. "The corporate defendants, Ward Food Products Corporation, the Ward Baking Corporation, and Ward Baking Company, constituting one group; the General Baking Corporation and the General Baking Co., constituting a second group; and the Continental Baking Corporation and United Bakeries Corporation, constituting a third group, are severally perpetually enjoined, (1) from acquiring, holding, voting, owning, or exercising the control of the whole or any part of the shares of the capital stock of any of the corporations in either of the other groups or their subsidiaries, and from acquiring any of their physical assets; (2) from electing or appointing and from continuing in office any person as a director or as an officer who is at the same time a director, officer, agent, or employee in any of the corporations of either of the other groups or their subsidiaries; and (3) from entering into any contracts, agreements, or understandings with one or more of the corporations of the other groups for joint purchases of materials, supplies, and equipment, or for common prices or common policies in the marketing and sale of their output."

In 1930, the Department of Justice investigated the alleged failure of bread prices to reflect the decline of wheat prices. In March, 1931, the Capper Committee commented strongly on the "alarming trend toward monopoly in the control of bread and milk."

This attitude of Government and public is a factor which must always be considered in analyzing the possibility of expansion on the part of the larger companies.

Factors Affecting Profit

In the bread and cake division, as in all others, the quality of the management is a major factor affecting the profitability of individual concerns. For the industry as a whole, however, certain more general factors may be considered. Among these, the most important are:

1. Price of flour and purchasing policy.
2. Modernity and maintenance of plants.
3. Location of plants.
4. Size of plants.
5. Cake production.
6. Integration.
7. Marketing methods.
8. Competitive situation.

Price of Flour and Purchasing Policy

The cost of flour is approximately 25%-35% of the price of a finished loaf of bread. In 1927, it was estimated that the proportion of the total price of bread taken by various agencies was as follows:

Farmer	13.0%
Miller	5.0
Railroads and other handlers	7.0
Total cost to baker	25.0%
Baker	60.0%
Grocer	15.0

EXHIBIT X

COMPARISON OF RETAIL PRICE OF BREAD AND WHOLESALE PRICE OF FLOUR

1926–1932

Indexes, 1926=100

Year	Bread	*Flour
1926	100.0	100.0
1927	99.5	88.0
1928	97.0	85.0
1929	96.0	80.5
1930	92.5	67.0
1931	80.5	54.0
1932	†	†

*Standard Patents, Minneapolis—Average price for year.
†Not available.

Source: Computed from data of U. S. Dept. of Agriculture.

More recent estimates suggest that these proportions hold relatively true to-day. The retail price of bread, quoted in cents, is not readily adjustable. With the price at $0.10, the smallest cut which may be made amounts to 10%. Thus, bakers normally find it necessary to absorb minor fluctuations in raw materials. There is considerable evidence that these minor

fluctuations average out reasonably well over a period of time, insofar as their effect on bakers' profits is concerned.

Major changes, however, undoubtedly have an important effect on bakers' profits. During the World War, bakers suffered severely from their inability to raise bread prices sufficiently to compensate for the extremely high price of flour. With general purchasing power well maintained and wheat and flour prices slowly declining, bakers' earnings climbed from 1925 to a peak in 1929. Mr. M. Lee Marshall, Chairman of the Continental Baking Corporation, declared late in 1932 that profits per pound loaf had risen from .54 of a cent in 1927 to .69 of a cent in 1930, and declined to .40 of a cent in 1932. He also stated that, for the first forty-three weeks of 1932, actual price reductions in bread made by his Company, compared to the same period in 1930, amounted to $6,305,940, against reductions in flour cost of only $3,314,230.

Since flour costs amount to but 25%-35% of the retail price of bread, it is evident that marked decreases in the price of bread per pound must either be compensated by decreases in the cost of other ingredients, labor, and fixed expenses per pound or result in a decrease in earnings. Mr. Marshall and other commentators have stated the "delivery costs, which represent a larger proportion than flour costs in a loaf of bread, remain practically constant, labor costs are down only 10% absolutely, and even less than this in proportion to the lower volume of business, and taxes have increased."

EXHIBIT XI
MATERIALS CONSUMED IN THE BAKING INDUSTRY
1929
000 omitted

		Value	% of Total
Total value of products of 9,990 establishments reporting materials		$1,385,313	100
Flour:	$277,819		20.1
White	$248,625		
Graham and whole wheat	9,269		
Rye	10,185		
Other	9,740		
Sugar		52,701	
Eggs (fresh, frozen, dried)		42,770	
Butter (and butter substitutes)		16,004	
Lard (and lard substitutes)		45,686	
Other shortening		17,574	
Milk (fluid, condensed, evaporated and powdered)		26,733	
Yeast		20,103	
Malt extracts		3,600	
Value of total ingredients		$502,990	36.4

Source: Census of Manufactures.

Location, Maintenance, and Size of Plants

A very much larger proportion of the cost of the final product is under the control of the commercial baker than is true of most other food industries. In meat packing, for example, between 80% and 85% of the packers' receipts are paid out for livestock; in contrast, the bakers' ingredient cost is in the neighborhood of 35%-45% of receipts. Thus, the efficiency of the bakers' plant and delivery methods are much more important and inventory and price fluctuations much less important.

The location of plants is primarily significant in regard to the industrial conditions in the community and the delivery problem. The question of the most efficient size for a bakery is closely tied up with the question of location. Exhibit XII presents figures published in 1927 by the Federal Trade Commission as the result of its study of the industry. Under the conditions prevailing at the present time, these figures may only be considered as suggestive of the relative costs and profits of plants of different sizes, and not as accurate statements of present per pound costs and profits. The cost to doors roughly includes the manufacturing costs; in total cost, delivery and some administrative expense is added. In respect to manufacturing costs, larger bakeries clearly have a definite advantage, but the advantage apparently does not increase markedly above a certain size, perhaps 10,000,000 pounds a year. This is not surprising; large-scale baking is done on a unit basis. When one set of the largest and most efficient mixing machines and ovens has been installed, but slight economies can be secured by the addition of similar units. Of greater importance is fitting the size of the plant to the demand in the territory in which deliveries may profitably be made.

EXHIBIT XII
BAKERY PROFITS ACCORDING TO SIZE OF PLANT
Unit: cents per pound

Production (pounds per year)	Sales Realization		Cost to Doors		Total Cost		Profit	
	Single	Multiple	Single	Multiple	Single	Multiple	Single	Multiple
Under 2,500,000	8.252	7.421	5.768	5.447	7.459	7.622	0.793	*0.201
2,500,000 to 5,000,000	7.152	7.454	4.920	5.125	6.819	7.209	.333	.245
5,000,000 to 7,500,000	7.373	7.430	5.051	5.011	7.041	6.895	.332	.535
7,500,000 to 10,000,000	7.643	7.448	5.049	4.960	7.177	6.939	.466	.509
10,000,000 to 15,000,000	7.304	7.286	4.625	4.822	6.609	6.620	.695	.666
15,000,000 to 20,000,000	7.187	7.305	4.366	4.704	6.708	6.343	.479	.962
20,000,000 to 25,000,000	7.280	7.588	4.921	4.892	6.544	6.694	.736	.894
25,000,000 to 30,000,000	7.267	7.539	4.826	4.860	6.404	6.471	.863	1.068
Average	7.393	7.420	4.890	4.889	6.829	6.697	.564	.723

*Loss.

Source: Federal Trade Commission.

Cake Production

Under the conditions prevailing prior to the depression, the manufacture and sale of cake and other products was a notably profitable phase of the industry. It was possible to secure a materially higher margin on cake than on bread, and the possibilities of expansion were much greater. Companies restricting their production to bread alone secured very much smaller profits per dollar of sales as is shown in Exhibit XIII.

EXHIBIT XIII
PERCENTAGE PROFITS OF BAKING COMPANIES IN RELATION TO PRODUCTS SOLD
1920–1925

Year	Companies Selling Bread Only	Companies Selling Bread and Other Products: Bread	Companies Selling Bread and Other Products: Other Products	Companies Selling Bread and Other Products: Bread and Other Products
1920	4.72	5.65	7.29	6.00
1921	6.12	8.91	13.95	9.90
1922	4.83	9.54	13.59	10.41
1923	6.57	9.32	9.42	9.34
1924	8.03	11.35	5.87	10.19
1925	4.45	10.62	10.20	10.53
Average	5.95	9.42	9.72	9.48

Source: Federal Trade Commission.

In the last three years, however, the disadvantages of great dependence on a large volume of cake sales have become clearly apparent. With restricted purchasing power, consumers have limited sharply their consumption of cake and pastry and/or have returned to home baking. Both developments have served to cut cake sales drastically. Thus, at present the concern which is least dependent on cake sales, the General Baking Company, is making by far the best showing among the larger companies.

Marketing Methods

Selling and delivery is a major cost of all baking concerns, except small retail bakeries. With the exception of bakeries operated by grocery chains, such costs average between 25% and 30% of the bakers' sales. As has been pointed out, bakery products are sold and delivered both to the homes of consumers and to retail stores. The house-to-house method has been relatively less important than the wholesale method. During the last two or three years, however, there has been some evidence of an increase in the use of this method of selling; smaller independent baking concerns sell more frequently on a house-to-house basis. In the performance of the delivery function, it is doubtful whether large size permits any appreciable economies, except possibly in the maintenance of delivery equipment. Of real importance, however, are the advertising and promotional activities.

The General Baking Company, with its Bond Bread, was the pioneer in concentrating on a single brand and advertising on a national basis. Upon the organization of the Continental Baking Company, a similar program was adopted in respect to Wonder Bread. Smaller companies have adopted similar policies within a smaller area.

EXHIBIT XIV
DISTRIBUTION OF SALES
BREAD AND CAKE DIVISION
1929

	Per Cent. of Total Sales
Sales to own wholesale branches	2.4
Sales to own retail branches	11.1
Sales to wholesalers	7.4
Sales to retailers	50.8
Sales to consumers:	
(a) Hotels, etc.	3.1
(b) Household	25.2

Source: Bureau of the Census.

Recently the General Baking Company has purchased the Steenbock patents for the incorporation of sunshine vitamin-D in bread. The advertising possibilities of this acquisition may well be sufficient to increase considerably consumer preference for General Baking Company bread. Full benefits of the campaign, however, will not be felt until there is some increase in consumer purchasing power: low price in many areas is the all-important factor controlling purchases of bread. Under these conditions, the competition of chain store bakeries assumes large importance.

The Competition of Chain Store Bakeries

The baking of bread frequently has been the first step in manufacturing taken by grocery chains. The Kroger Grocery & Baking Company, one of the largest grocery chains, inaugurated this policy early in its history and the move has since been adopted by practically all large chains. It is not easy to state definitely how large a chain must be to make the operation of its own bakeries profitable; if a chain has enough stores located within the limits of a few hours transportation time to use the output of a plant of the most economical size, chain baking is undoubtedly worth while. Chains operating large numbers of stores in metropolitan areas have been quick to establish bakeries.

Exhibit XV gives figures compiled some years ago by the Federal Trade Commission in regard to the costs of various types of bakeries. The figures are not directly comparable as the footnotes indicate, but there is evidently a notable advantage in selling and delivery costs in favor of the chain. The differences

EXHIBIT XV

COSTS AND PROFITS OF THREE TYPES OF COMMERCIAL BAKERIES

Unit: Cents Per Pound

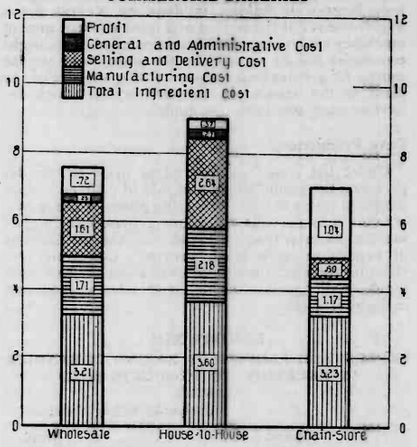
	Wholesale	House-to-House	Chain Store
Flour cost	2.310	2.345	2.354
Other ingredient cost	.898	1.256	.872
Total ingredient cost	3.208	3.601	3.226
Manufacturing cost	1.706	2.184	1.168
Total cost to doors	4.914	5.785	4.394
Selling and delivery	a1.607	b2.635	c.595
General and administrative	.228	.272	d...
Total cost	6.749	8.692	4.989
Profit	.762	.371	e1.041
Sales realization	f7.511	g9.063	h7.030

a—To retailer. b—To house of consumer. c—Delivery only to chain-store units. d—No administrative and general expense charged against chain store bakeries. e—Profits before deducting general and administrative expense and expense of selling by the chain-store units. f—Generally delivered to retail store. An average retail margin obtained on about one-quarter of a million pounds of bread in 62 cities where the baking plants included in this study were located was 1.210 cents per pound of bread. g—Delivered to consumer at house. h—Sold over counter to consumer for cash.

Source: Federal Trade Commission.

EXHIBIT XVI

COSTS AND PROFITS OF THREE TYPES OF COMMERCIAL BAKERIES



in cost and in selling price may or may not be compensated for in the minds of consumers by the allegedly higher quality of the product of the national bakers; in any event, they constitute a real barrier to be overcome by advertising and promotion.

Grocery chains have been doing an increasingly large proportion of the business in foodstuffs, and now account for more than 30% of the total. There are no definite indications that this increase has reached its limit; figures for the number of stores operated by grocery chains are misleading, for such concerns have been concentrating on larger stores rather than more stores. The competition of grocery chain bakeries is not only likely to continue, but to grow increasingly serious for the wholesale bakers.

A potential, if not yet an actual, threat to the baker may also result from the rapid association of independent grocers in the so-called voluntary chains. Beginning as little more than buying clubs pooling orders for a few staple commodities, the voluntary chains have steadily tightened their control methods, and many are now approaching the completeness of supervision found in the regular chains. The number of stores enrolled in such groups in the aggregate now exceeds the number of units owned by full-fledged chains; several voluntaries number their stores in the thousands.

It has been the policy of the voluntary chains to conform closely to the methods used by the regular chains; as yet, however, only tentative steps have been taken toward carrying on manufacturing activities. In cases where voluntaries have a large membership in a small area, it would seem not unlikely that bakeries might be established or close relations negotiated with existing baking concerns. Preliminary measures of the latter type have already been adopted by a few voluntary chains. Their extension by either means would inevitably intensify the competitive situation in the industry.

Integration

In the baking industry, vertical integration might take the form of reaching back toward the producers of materials or reaching forward to control the distributive channels. Integration of the first type has not been common. The more important materials of the baker are flour, sugar, lard or substitutes, milk, eggs and yeast. For none of these is there a real need for controlling the source of supply. Certain baking concerns conceivably might find the control of flour mills advantageous, but not the majority. For a short time, the Continental Baking Corporation owned a substantial interest in the Commander-Larabee Corporation, but this interest was sold in 1930. Seven or eight years ago, William B. Ward is alleged to have had grandiose ideas of a gigantic combine, which would have included flour mills, bakeries, both bread and biscuit, a large yeast company, etc.; the project collapsed under threats of Governmental action.

For a number of reasons, the prospect of combinations of this sort appears extremely remote. For efficient operation of their plants, commercial bakers require flour which meets comparatively rigid specifications. Mills in relatively few localities can be certain of producing flour each year which meet these requirements; Buffalo, because wheat from many sections flows through it, is the outstanding exception. But heavy transportation charges on flour preclude bakery ownership of mills in Buffalo, unless bread output in the New York and New England area is sufficient to consume the production of the flour mill. Furthermore, the excess capacity present in the milling industry gives large buyers an opportunity to make advantageous purchases in the open market. Similarly, market purchases of other ingredients often offer opportunities for successful "shopping around." Finally, the scale of operations in most of the industries supplying the bakers is relatively larger than in the baking industry; only the very largest bakers conceivably could utilize the entire output of their suppliers.

In the other direction, integration could only take the form of the control of retail stores. Bakers universally deal either with consumers or retailers; perishability eliminates the possibility of wholesalers or other intermediaries. One concern, Purity Bakeries Corporation, through its subsidiary, Cushman's Sons, Inc., has extensive retail operations through more than 200 stores in the New York metropolitan area. In common with many other retail enterprises which were rapidly expanded during the second half of the last decade, this concern apparently has found rentals a source of difficulty. The wide line of cakes and pastries, as well as bread and rolls, necessary for the successful operation of a chain of stores devoted primarily to bakery products, has caused the company to feel keenly the drastic reduction in the public's consumption of semi-luxury commercially baked products. Under the conditions prevailing, and likely to prevail for some time to come, an increase in the practice of controlling retail stores on the part of wholesale bakers is hardly to be expected.

BISCUIT AND CRACKER DIVISION

Significant Characteristics of the Division

The biscuit and cracker division of the Baking Industry differs sharply in a number of respects from the bread and cake division. These differences have been pointed out in the section on bread and cake baking, and need no detailed repetition here. The most important difference from the viewpoint of the investor is the fact that biscuit baking is conducted on a relatively large scale, and that it has been concentrated in the hands of a very small number of companies. For all practical purposes, the industry is composed of but three companies, controlling more than 75% of the total production. This may be contrasted with 20%-30% of the business controlled by the four leading bread and cake bakers.

A number of factors have contributed to making biscuit baking a relatively large-scale business in the United States much earlier than bread baking. One of these is the non-perishable character of biscuits. As early as Colonial times, there grew up a trade in ship biscuits, especially with humid tropical countries, in which flour does not keep well and bakers' yeast spoils easily. In 1810, biscuits were listed as among the manufactured items most frequently exported. Neither bread nor baking is mentioned. Moreover, biscuits and crackers lend themselves more readily than bread to manufacture by machinery and to mass production, in part because they are not necessarily leavened by yeast. Inventors, therefore, turned their attention in the United States very early to cracker machinery. Patents for biscuit making machines were issued as early as 1813. Biscuit manufacture has, therefore, long been conducted on a larger scale than has bread baking. Exhibit XVII shows the markedly small number of establishments in this branch of the industry. Partly because of this fact, combination in the biscuit making industry preceded combination in the bread baking industry. The National Biscuit Company, formed in 1898 in the great era of trust formations, brought under single control a majority of the manufacturers of crackers and biscuits; the nineties saw no considerable combination among bread bakeries.

EXHIBIT XVII

GROWTH OF THE BISCUIT AND CRACKER DIVISION

1914–1931

Dollar Totals in Thousands

Year	Number of Establishments	Wage Earners	Value of Raw Materials	Value Added by Manufacture	Total Value of Products
1914	166	25,035	$43,674	$45,810	$89,484
1919	176	34,341	103,134	100,886	204,020
1921	149	31,474	83,046	104,462	187,508
1923	167	35,117	89,352	122,436	211,788
1925	194	32,377	107,268	137,258	244,526
1927	220	32,982	107,932	141,057	248,989
1929	375	33,871	107,101	167,388	274,489
1931	351	28,506	69,172	142,437	211,609

Source: Census of Manufactures.

During 1898, the newly organized concern secured sales of $34,051,279 and net profits of $3,292,143. Although sales figures have not been published in recent years, National Biscuit had sales of approximately $104,000,000 in 1924, and for a number of years net profits have been in the neighborhood of $20,000,000.

Until 1926, the only major competitor of the National was the Loose-Wiles Biscuit Company, organized in 1902 as the outgrowth of a concern founded

EXHIBIT XVIII

COMPARISON OF GROWTH OF NATIONAL BISCUIT COMPANY AND LOOSE-WILES BISCUIT COMPANY

	National Biscuit Company		Loose-Wiles Biscuit Company	
Year	Total Assets	Investment in Fixed Assets	Total Assets	Investment in Fixed Assets
1911	$65,800,943	$53,159,201	$7,029,456	$3,038,033
1921	83,188,074	61,425,322	20,089,294	12,989,410
1925	102,038,736	73,745,077	22,186,727	13,371,528
1931	139,464,236	95,561,609	28,989,121	18,719,634

in 1886. An indication of the relative positions of the two companies at the incorporation of Loose-Wiles is found in the sales figures for 1911—$11,696,461 for Loose-Wiles and $45,340,000 for National. Until the organization of the United Biscuit Company in 1927, National and Loose-Wiles completely dominated the industry. A description of developments, therefore is largely a description of these companies.

Organization and Expansion

Throughout most of their corporate histories, both National and Loose-Wiles have pursued a policy of expanding by the establishment of new plants and the introduction of new lines. The managements adhered closely to the belief that it was less expensive to establish a new branch by advertising than to purchase a competitor. During the middle twenties, both companies deviated from this policy to purchase or combine with other companies, but with the primary purpose of diversifying their products. This development is considered in more detail below. The growth of the manufacturing facilities of the two companies is indicated by Exhibit II.

Growth Based on Trade-marked, Packaged Products

In their rapid growth, the large cracker companies were the beneficiaries of changes in American habits, and, at the same time, played an important part in bringing about changes in those habits. From its organization, National actively promoted the sale of its trade-marked, packaged goods. Through the development of the In-er-seal package, which served to preserve the freshness of the product, the Company was able to offer definite advantages over the cracker barrel. Its trade names, Uneeda, Nabisco, Social Tea, and others, became symbols of reliability and standard quality. The bulk goods, manufactured in large quantities, were sold at prices low enough to discourage competition, while profits came from the packaged lines. During the early years of the Company, in twelve major cases, each detail of trade-mark and package was adjudicated in favor of the Company. Constant war was waged against imitators and, by 1908, ten years after organization, 402 imitators had been stopped.

Loose-Wiles followed a similar policy and its "Sunshine" brand and the slogan of the "Thousand Window Bakeries" capitalized the growing demand for sanitation and cleanliness in foodstuffs. So thoroughly have these two companies done their task that the cracker barrel has become the symbol of a departed era—the demand for packaged goods is thus perhaps the strongest element in the cracker companies' strong position.

Early Diversification of Products

Originally, the great bulk of the cracker business lay in the unsweetened products. Americans did not share the English liking for sweet biscuits. But the increase in American consumption of sugar has been one of the notable dietetic accompaniments of increasing prosperity. All branches of the foodstuffs industry have felt the effects of this trend, but the biscuit bakers were prompt to capitalize upon it by developing the sale of higher-margin fancy crackers —thus securing a steadily increasing demand.

Integration and Diversification in Recent Years

Motivated by the firmly established belief of American business that a company which is not expanding will necessarily fall back, National and Loose-Wiles began a series of expansions by acquisition during the middle twenties. The first step made by National was to purchase the National Milling Company of Toledo as a source of flour. During 1927 and 1928 a number of independent cracker manufacturers were acquired, usually by exchange of stock. The more important of these were manufacturers of specialty items not included in the National line, and included Christie, Brown & Company, Ltd. of Canada, bakers of English style biscuits. In 1929, the most definite step out of the cracker field was taken by acquiring the Shredded Wheat Company, manufacturers of the well-known breakfast food. During 1930, three large biscuit bakers, controlling popular brands, were acquired—Pacific Coast Biscuit Company, Bishop & Company, and Wheatsworth, Inc. The integration involved in the operation of a flour mill was accompanied by the operation of a carton manufacturing plant to supply the requirements of the Company. By 1932, the products of the Company included, in addition to more than 400 varieties of crackers, bread, prepared puddings, cereal breakfast foods, ice cream cones, candy, cocoa, cake flours, and peanut butter. With the exception of Shredded Wheat, however, none of these products contributed materially to the total sales of the Company; the great bulk of the business remains in biscuits and crackers. There are some indications, however, that the Company has already begun to expand the market for some of these products; if it succeeds, the Company will clearly have taken a place among the concerns classified by Poor's as Diversified Food Companies.

In 1927, the Loose-Wiles Biscuit Company began a similar but less active policy of expansion by acquisition. A number of companies baking specialties, such as The Green & Green Company, bakers of Edgemont crackers, or concerns located in areas in which the Company was not strongly represented, such as the Tru-Blu Biscuit Company of Seattle, have been secured. Loose-Wiles also obtained control of a flour mill to furnish part of its requirements of this material.

Formation of a Third Company

The organization of a third merger in the field had often been rumored—in 1925 it became a reality with the organization of the United Biscuit Company. Originally made up of the Sawyer Biscuit Company of Chicago and the Union Biscuit Company of St. Louis, two long-established independents, it quickly took in six other established biscuit bakers, located

in cities throughout the Middle West, as well as a carton manufacturer. By this step, the Company became definitely the third in size in the industry. In 1928, the Company continued its policy of acquiring geographically diversified concerns by taking over the Ontario Biscuit Company, the Heckiman Biscuit Company of Grand Rapids, and the Quality Biscuit Company of Milwaukee. With the addition of two more concerns in 1929 and 1930, the expansion plans of the new merger apparently have come to a halt.

Marketing Methods

The biscuit companies belong in the relatively small group of companies which find it necessary to control the selling and delivery of their products to the retailer. Although less perishable than bread, biscuits and crackers may not be long delayed between baking and sale; crispness is a fundamental characteristic demanded by consumers. Furthermore, the rate of deterioration is much affected by the conditions under which crackers are kept; direct sale permits the manufacturers to govern conditions until the product reaches the store. Again, the maintenance of the quality of the product demands that the retailer be not overstocked; wholesalers, and other intermediaries, might be tempted to oversell where the manufacturer, realizing the consequences, would not. Finally, a tempting display is a powerful factor in the sale of such merchandise; direct sale and delivery permits the manufacturers' salesmen to oversee the preparation and maintenance of such displays.

For these reasons, biscuit bakers have established sales offices to which goods are shipped in large quantities and from which they are directly transported to retail stores. The National Biscuit Company, for example, operates some 250 sales offices in all parts of the country. Credit terms, except for large buyers, are very short, and a large portion of the business is done on a cash basis, as is reflected by the figures for receivables given in Exhibit XXIX.

EXHIBIT XIX
DISTRIBUTION OF SALES
BISCUIT AND CRACKER DIVISION
1929

	Per cent of Total Sales
Sales to own wholesale branches	53.9
Sales from factory to	
(a) Retailers	34.4
(b) Wholesalers	8.0
(c) Users:	
(1) Hotels, etc.	0.4
(2) Household	0.2

Source: Bureau of the Census.

Manufacturing and Inventory Problems

Biscuit and cracker baking lends itself to relatively large-scale operation. For a number of years, there has been a steady development of automatic or semi-automatic machinery in the industry. Packaging equipment, ovens, mixing and handling devices have all taken a place in this movement. Perceiving the possibilities of economies in operations on a large scale, the management of the National Biscuit Company early adopted the policy of concentrating production in a relatively small number of strategically located plants. Constant effort is still needed to keep operations at the most effective pitch, but manufacturing problems are not the primary determinants of profit in the industry.

The danger of losses through declining values of inventories is even less than it is in the bread baking division of the industry; raw materials constitute a much smaller proportion of the total cost. After a rather severe lesson learned by one of the major companies in 1920-21, the biscuit bakers are thoroughly committed to the policy of buying flour, sugar, and other ingredients for current requirements only. By adherence to this policy, the decline in price of these commodities during the past few years has reacted favorably rather than otherwise upon earnings.

New Products and Small Manufacturers

A considerable part of the demand for fancy crackers is directed toward novelties—people like variety in non-staple food products. For this reason, the large companies are constantly developing new items to appeal to this section of the market; for the same reason, small bakers sometimes score heavily with products which suit the public fancy. From a number of examples during the past five years, the successes achieved by Golden Bear bridge cookies, and Educator Cracker Company's Thinsies may be cited. Since such items seldom can be protected legally, however, a permanently successful product can be promptly taken over by the large companies; their wide distribution facilities and financial ability to advertise extensively then become effective weapons.

Foreign Business

The foreign trade of the United States in biscuits and crackers is not large. In recent years, imports and exports of bakery products have been as follows:

	1928	1929	1930	1931
Exports	$1,966,000	$2,031,000	$1,613,000	$908,000
Imports	1,004,000	1,001,000	1,076,000	764,000

Although figures are not available which distinguish the types of products entering into this trade, it is probable that the greater part is attributable to the cracker and biscuit division. Much of the imports are undoubtedly high quality English type biscuits.

The leading cracker and biscuit company, however, has a larger amount of foreign business than these figures would indicate, largely through its control of Christie, Brown & Company, Ltd., a large Canadian manufacturer. In general, however, the fortunes of the biscuit companies are determined by conditions in the domestic market.

The Present Position of the Industry

At present, the industry, therefore, consists of three major companies, standing in the industry in approximately the relation of 5 to 2 to 1, in respect to

total assets, earnings, and perhaps public acceptance of brands. Unlike many divisions of the food industry, these three concerns do not face direct competition from companies whose primary business lies elsewhere; nor does biscuit baking by grocery chains appear probable. The contrast with the bread and cake division is in no respect more evident than in this restriction of competition. The large-scale machinery and equipment, the elaborate distribution systems, and above all the tremendous consumer acceptance accorded the biscuit bakers' trade names, have combined to discourage chain grocery baking.

Thus, for a considerable time at least, the future of the industry as it is now constituted will be determined by:

a. The trend in the demand for biscuits and crackers as related to other food products, determined by purchasing power.

b. The continuance of the desire for trade-marked, packaged goods.

c. Internal factors affecting the profit of individual companies.

The Trend in the Demand for Biscuits and Crackers

Prior to 1914, Census of Manufactures reports did not differentiate between the two branches of the baking industry, but statistics of the biscuit and cracker division are presented in Exhibit XVII for census years after 1914. The per capita consumption of such products is given in Exhibit XX, and indicates clearly one of the major factors behind the growth of the great biscuit companies. The factors which undoubtedly have influenced this growth include increased urbanization with attendant smaller homes and less home preparation of food; a strong demand for convenience and for readily prepared food products; and the desire for more and more variety in the daily diet.

EXHIBIT XX

ACTUAL AND ADJUSTED PER CAPITA CONSUMPTION OF CRACKERS AND BISCUITS IN DOLLARS

1914–1931

Year	Total Production (000 Omitted)	*Per Capita	†Wholesale Price Index 1926=100	**Per Capita Adjusted To 1913 Price Level
1914	$89,484	$0.91	64.7	$1.40
1919	204,020	1.94	129.5	1.50
1921	187,508	1.74	90.6	1.92
1923	211,788	1.89	92.7	2.04
1925	244,526	2.12	100.2	2.12
1927	248,989	2.10	96.7	2.17
1929	274,489	2.25	99.9	2.25
1931	211,609	1.70	74.6	2.28

*Consumption at manufacturers', not retail, prices. **Adjusted by using the wholesale price index of the U. S. Bureau of Labor Statistics. †U. S. Bureau of Labor Statistics.

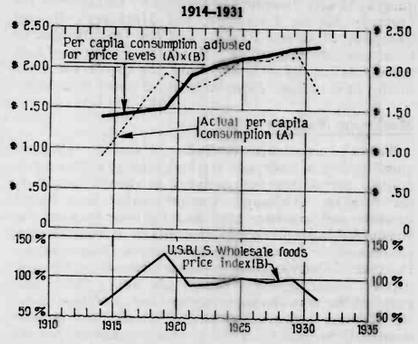
Source: Computed by Poor's from data of Census of Manufactures.

It is highly probable that, if figures for 1932 were available, a decidedly larger drop in consumption would be shown; certain staple items of low price

EXHIBIT XXI

ACTUAL AND ADJUSTED PER CAPITA CONSUMPTION OF CRACKERS AND BISCUITS IN DOLLARS

1914–1931



undoubtedly have maintained their position, but long-continued depression may well have lessened the demand for fancy crackers, much as it has the demand for cake. The figures cited in the discussion of the sugar industry, which show a pronounced decrease in the per capita consumption of sugar, tend to support this assumption. On the whole, however, the consumption of biscuits and crackers has held up extremely well; for the future, there seems no reason to believe that the gradual increase in population and a growing per capita consumption, albeit at a slower rate than in the past, will not maintain and somewhat increase the demand for crackers and biscuits.

Packaged vs. Bulk Merchandise

Moreover, this demand probably will continue to take the form of a desire for trade-marked, packaged merchandise. Under the present conditions in the baking industry, as in most other food industries, there has been an appreciable movement toward substituting private brands, or the brands of less well-known companies, for nationally advertised brands. This development is discussed in the section dealing with the present competitive situation in the industry. In the long run, there is as yet little evidence that the American public will forego its custom of demanding trade-marked, packaged merchandise.

The Competitive Situation

In a period of restricted purchasing power, all industries are likely to suffer from price-cutting initiated, usually by the weaker companies, to maintain volume. With declining price levels in all phases of industry, such price-cutting is probably inevitable; if it is orderly and gradual, companies normally are able to adjust themselves without too much difficulty, unless they are burdened with heavy fixed charges; if it is disorderly and rapid, profit margins soon disappear. The form which price-cutting takes is normally determined by the number of companies in the industry, the nature of the product, and the financial condition of the manufacturers.

In the biscuit and cracker division, price declines have been relatively gradual and orderly. Although competition between the leading companies has been keen, it has not been unreasonable. Furthermore, the industry has been relatively free from a practice that is now causing difficulties in many other industries, namely: the manufacture of goods under the names of large distributors to be sold at a lower price in direct competition with nationally advertised merchandise sold under the manufacturers' brand. Within recent months, however, there have been some indications that price competition is increasing. A number of small producers and one of the large companies with activities concentrated in the Central West have aggressively attacked the price structure on many items. Curtailed consumption in this area has been reflected in the sharply lower earnings of these companies. Such developments have occurred before, however, and the leading companies have successfully withstood the attacks of competitors, both offering new products and/or lower prices. It is altogether likely that history will be repeated.

FINANCIAL RECORDS AND POLICIES

The tables and charts which accompany this discussion present in some detail an analysis of the financial records of the two divisions of the Baking Industry. Attention is particularly directed to the fact that figures for the bread and cake division prior to 1925 and for the cracker and biscuit division prior to 1926 are based on fewer companies than those for more recent years. Several of the important companies were organized in the middle twenties; statements of the components which were merged in their creation are not available or are available in fragmentary form. Nevertheless, it has been deemed desirable that some data showing the manner in which the industry passed through the 1921 depression be presented. Naturally, there is an obvious break in the continuity of the dollar totals; the percentage analysis, however, is of considerable value.

EXHIBIT XXII

COMBINED EARNINGS, RETURN ON INVESTED CAPITAL, AND DIVIDEND RECORD OF SEVEN LEADING BAKING COMPANIES BY TWO MAJOR DIVISIONS

1920–1932

FOR COMPANIES INCLUDED, SEE APPENDIX

Dollar Totals in Thousands

Year	Total Earnings Before Fixed Charges	Fixed Charges	% Fixed Charges to Earnings Before Fixed Charges	Total Earnings Available for Dividends	Dividends	% Earnings Distributed in Dividends	Reinvested Earnings	Total Invested Capital	*% Return on Investment
Bread and Cake Division									
1920	$3,184	$476	14.9	$2,708	$2,570	94.9	$138	$38,084	9.1
1921	4,765	561	11.8	4,204	2,170	51.6	2,034	43,363	11.7
1922	7,828	544	6.6	7,284	3,494	48.0	3,790	47,923	17.1
1923	8,914	560	6.2	8,354	4,174	50.0	4,180	59,653	16.5
1924	10,168	523	5.1	9,645	5,506	57.0	4,139	63,122	16.5
1925	22,307	1,110	4.9	21,197	11,050	52.1	10,147	159,972	13.9
1926	20,794	969	4.6	19,825	15,559	78.7	4,266	155,420	14.1
1927	21,736	986	4.5	20,750	15,108	72.8	5,642	156,460	13.3
1928	22,295	1,269	5.7	21,026	14,463	68.7	6,563	175,537	13.4
1929	24,513	1,789	7.4	22,724	14,738	65.0	7,986	178,741	13.8
1930	18,921	1,416	7.4	17,505	13,095	74.8	4,410	180,961	10.5
1931	14,277	1,456	10.2	12,821	12,287	95.8	534	164,214	8.2
1932	8,872	1,283	14.4	7,589	8,897	117.0	‡1,308	145,126	6.1
Cracker and Biscuit Division									
1920	6,488	Nil	Nil	6,488	4,242	65.3	2,246	94,387	6.9
1921	5,901	16	0.4	5,885	4,268	72.5	1,617	96,133	6.2
1922	11,859	15	0.1	11,844	5,298	44.7	6,546	102,559	11.9
1923	13,020	14	0.1	13,006	8,599	66.1	4,407	106,759	12.4
1924	14,069	11	†	14,058	10,635	75.6	3,423	110,076	13.0
1925	15,002	8	†	14,994	10,353	69.0	4,641	118,685	13.1
1926	16,744	29	0.1	16,715	13,671	81.8	3,044	119,385	14.0
1927	19,316	110	0.5	19,206	15,246	79.4	3,960	131,340	15.4
1928	21,949	272	1.2	21,677	18,402	84.9	3,275	147,841	15.7
1929	26,586	270	1.0	26,316	22,046	83.8	4,270	161,770	17.1
1930	27,617	329	1.2	27,288	24,741	90.7	2,547	167,487	16.7
1931	23,723	217	0.9	23,506	22,290	94.8	1,216	168,022	14.1
1932	19,549	215	1.1	19,334	17,550	90.8	1,784	171,515	11.5

*Based on average of investment at beginning and end of year. †Less than 1/10 of 1%. ‡Withdrawn from surplus.

NOTE: Bread and Cake Division includes two companies from 1920 to 1924 and four companies from 1925 to 1932; Cracker and Biscuit Division includes two companies from 1920 to 1925 and three companies from 1926 to 1932.

Source: Annual Reports of Companies.

Earnings and Dividend Record

The picture presented by Exhibit XXII is that of a highly prosperous industry; both divisions of the industry alike have shown large earnings, made generous payments to security holders, and markedly expanded their total investment. Using the aggregate of funded debt, capital stock, and surplus as reported by the companies as the total investment involves some dangers for comparative purposes: individual company policies as to valuation may differ sharply. Nevertheless, the return on the investment so computed is a valid and useful measurement. Over the thirteen year period covered in Exhibit XXII, the average return on the investment of the bread and cake bakers was 12.6% and on the investment of the cracker and biscuit bakers 12.9%. Disregarding the figures for earlier years, which are based on fewer companies, the average returns for the seven years, 1926-1932, were 10.2% and 14.9% respectively. When it is realized that four years of generally prosperous business are balanced by three years of acutely subnormal activity, these figures appear the more unusual.

More important than average figures, however, is the trend of earnings. Here a sharp difference between the two divisions of the industry appears. In the 1921 depression, the bread and cake branch, judging by the records of two large companies, not only escaped unscathed but actually increased its earnings. Since this sample is so small, it is fortunate that there are figures available which confirm this conclusion. In 1927, the Federal Trade Commission published the results of a comprehensive study of the Baking Industry; Exhibit XXIII presents its findings in regard to the return on the investment of more than a hundred baking companies of all sizes. The basis for computing investment differed considerably from that used by Poor's and the figures, therefore, do not coincide; the significant feature is that this table also shows an increased return in 1921 in comparison with 1920. More than any other, this fact led to the characterization of the industry as "depression-proof." The reasoning ran that in "hard times" people turned even more to such inexpensive foods as bread, and that profits were bolstered by a steeper decline in raw material prices than in bread prices. In 1921, the second factor undoubtedly was of primary importance.

EXHIBIT XXIII

RATE OF RETURN OF BREAD AND CAKE DIVISION

1920–1925

Dollar Totals in Thousands

Year	Investment	Earnings	Per cent Rate of Return
1920	$72,192	$9,731	13.48
1921	79,268	13,246	16.71
1922	93,022	15,187	16.33
1923	125,555	18,020	14.35
1924	140,838	22,206	15.77
1925	165,960	25,874	15.59
Average	$112,815	$17,377	15.40

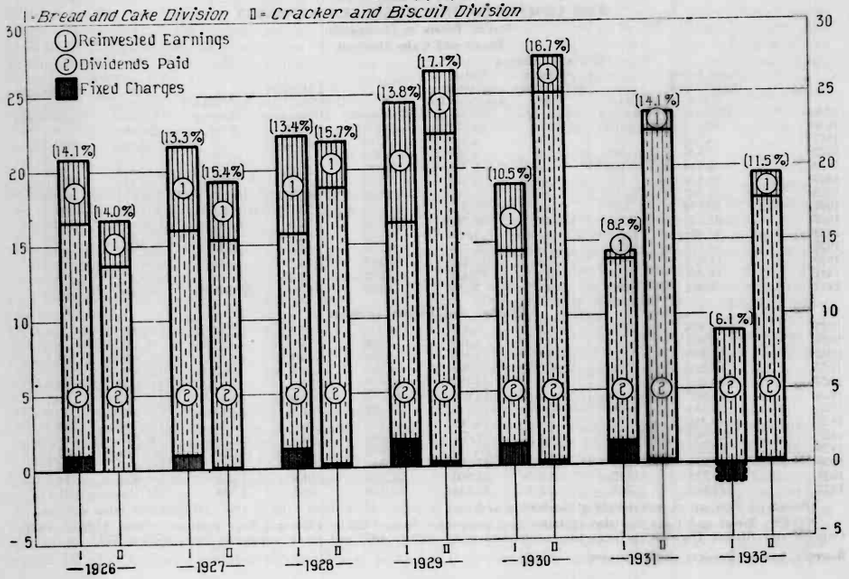
Source: Federal Trade Commission.

EXHIBIT XXIV

COMBINED EARNINGS, RETURN ON INVESTMENT, AND DIVIDEND RECORD OF SEVEN LEADING BAKING COMPANIES BY TWO MAJOR DIVISIONS

1926–1932

Unit: $1,000,000



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In the current depression, an entirely different situation has prevailed: earnings have become progressively smaller; the return on investment in 1932 was less than half that in 1929. The difference cannot be considered entirely or even largely a result of the greater length and severity of the current difficulties, for earnings and return on investment turned promptly downward in 1930. The cause is rather to be sought in the changed competitive situation in the industry. In 1920, the expansion of commercial baking at the expense of home baking was proceeding at an extremely rapid rate; by 1930, this expansion was continuing, if at all, at a very much slower rate. Furthermore, in 1920, reliance upon cake sales for profits had not become nearly as important as it was to be ten years later; consumption of commercial cake and pastry inevitably will decline during periods of restricted purchasing power. Again, the expansion, consolidation, and merger period, coupled with the sharp growth of baking by grocery chains, resulted in greatly increased capacity and set the stage for keen competition and price wars in 1930 in marked contrast to the conditions prevailing in 1920. Finally, the adoption of such novel relief measures as the distribution of Farm Board flour by the Red Cross and the establishment of commissaries for feeding the unemployed have injected an unusual factor into the situation. The force of several of these factors will not terminate with the return of more prosperous times: we believe that earnings will not soon climb to the levels of five years ago.

The biscuit and cracker division figures in Exhibit XXII tell a notably different story. Apparently, the two large companies whose results for 1920 and 1921 are portrayed incurred inventory losses sufficient to cause 1921 earnings to fall below 1920; the rebound in 1922 was sharp. In recent years, the return on investment has centered about 15% and did not fall below 11% even in dark 1932, a remarkable record, and one not duplicated in many industries. The resistance of the industry to the attacks of the depression constitutes an imposing testimonial.

Because of the large amount of preferred stock outstanding, the completion of the planned plant expansion, and the supposed stability of the industry, a relatively large proportion of the earnings of both bread and biscuit divisions has been paid out in dividends during the past eight years. Only in 1932, however, did the former division need to draw on surplus for dividends, while the latter still has a 10% margin. Both groups, of course, have found it necessary to reduce the rate of payment from the peak.

In view of the difficulties which the bread and cake division may well encounter during the next few years, the farsightedness of this liberal policy quite conceivably may be open to question. There can be no doubt, however, that the experience of the past supported a belief in the stability of the industry.

Fixed charges have constituted practically no problem for the biscuit division; in no year have more than 2% of earnings been required to meet fixed payments. Somewhat larger proportions of earnings have gone to bondholders of the bread division and, with declining earnings, the percentage has crept up; even so, in no year have fixed charges exceeded 15% of the earnings before fixed charges.

Capital Structure

As the preceding statement would imply, funded debt has not been an important method of financing the expansion of the baking industry. The bread and cake division has been somewhat more given to fixed indebtedness than the cracker and biscuit division; a major difference between the two, however, is evident in the figures for preferred stock. During the past eight years, preferred stock has ranged around 60% of total capital in the bread division in contrast with 20% in the biscuit division. Industries in which there have been many mergers and consolidations in the course of which a number of companies have been transferred from private to public ownership, often exhibit this characteristic. Preferred stock is issued to the former owners in amounts sufficient to cover the entire tangible assets, and common stock represents some excess earning power and the hope for future earnings increases. The two dominating companies in the biscuit division have long since passed beyond this stage in their development; the bread and cake companies have not as yet had time to build a comparable "cushion" under their preferred. Upon their organization in 1898 and 1912 respectively, preferred stock was issued to cover practically all the tangible assets of National Biscuit Company and Loose-Wiles Biscuit Company. For a number of years, all earnings above the requirements for preferred dividends, (in the case of Loose-Wiles, even preferred dividends were omitted for a considerable period), were used to finance plant expansion and rehabilitation and to develop tangible assets for the common stockholders. Over the course of many profitable years, this policy has resulted in a steady decrease in the ratio of preferred stock to total invested capital; it appears a reasonable deduction that the organizers of the large companies in the bread division planned to pursue a similar policy, but have not as yet made marked progress.

EXHIBIT XXV

COMBINED CAPITAL STRUCTURE OF SEVEN LEADING BAKING COMPANIES BY TWO MAJOR DIVISIONS

1920–1932

FOR COMPANIES INCLUDED, SEE APPENDIX

Dollar Totals in Thousands

Year	Funded Debt	% Funded Debt to Total Invested Capital	Preferred Stock	% Preferred to Total Invested Capital	Common Stock and Surplus	Total Net Worth	Total Invested Capital
Bread and Cake Division							
1920	$7,888	20.7	$14,488	30.1	$15,708	$30,196	$38,084
1921	9,609	22.1	16,574	37.5	17,180	33,754	43,363
1922	10,176	21.2	17,473	36.4	20,274	37,747	47,923
1923	9,837	16.4	17,940	30.0	31,876	49,816	59,653
1924	9,277	14.6	17,940	28.4	35,905	53,845	63,122
1925	16,051	9.6	98,047	59.0	45,874	143,921	159,972
1926	15,045	9.4	98,343	61.8	42,032	140,375	155,420
1927	12,691	7.9	97,602	61.4	46,167	143,769	156,460
1928	19,730	10.8	92,278	50.6	63,529	155,807	175,537
1929	18,383	9.9	91,038	49.3	69,320	160,358	178,741
1930	22,731	12.2	88,905	47.7	69,325	158,230	180,961
1931	20,291	11.9	85,911	50.6	58,012	143,923	164,214
1932	18,339	12.6	80,648	55.5	46,139	126,787	145,126
Cracker and Biscuit Division							
1920	Nil	Nil	31,383	33.2	63,004	94,387	94,387
1921	275	0.3	31,238	32.4	64,620	95,858	96,133
1922	245	0.2	31,208	30.5	71,106	102,314	102,559
1923	214	0.2	31,042	29.0	75,503	106,545	106,759
1924	184	0.1	30,969	28.1	78,923	109,892	110,076
1925	153	a	30,969	26.0	87,563	118,532	118,685
1926	900	0.7	31,615	26.4	86,870	118,485	119,385
1927	5,073	3.8	30,851	23.4	95,416	126,267	131,340
1928	5,106	3.4	30,723	20.8	112,012	142,735	147,841
1929	4,661	2.8	30,408	18.8	126,701	157,109	161,770
1930	4,844	2.8	30,256	18.0	132,387	162,643	167,487
1931	4,067	2.4	30,039	17.8	133,916	163,955	168,022
1932	3,200	1.9	29,788	17.4	138,527	168,315	171,515

a—Less than 1/10 of 1%.

NOTE: Bread and Cake Division includes two companies from 1920 to 1924 and four companies from 1925 to 1932; Cracker and Biscuit Division includes two companies from 1920 to 1925 and three companies from 1926 to 1932.

Source: Annual Reports of Companies.

EXHIBIT XXVI

COMBINED CAPITAL STRUCTURE OF FOUR LEADING BREAD AND CAKE BAKERS

1925–1932

Unit: $1,000,000

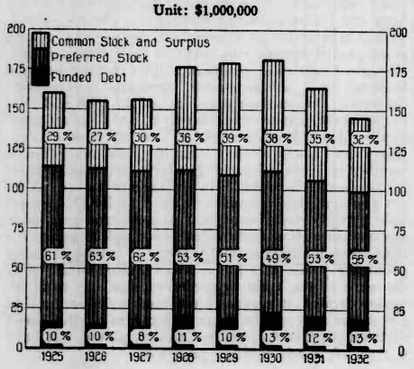


EXHIBIT XXVII

COMBINED CAPITAL STRUCTURE OF THREE LEADING BISCUIT AND CRACKER BAKERS

1926–1932

Unit: $1,000,000

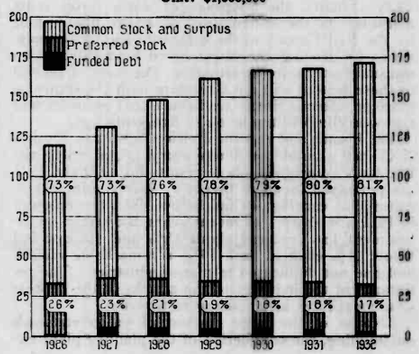


EXHIBIT XXVIII

COMBINED ASSET ANALYSIS OF SEVEN LEADING BAKING COMPANIES BY TWO MAJOR DIVISIONS

1920–1932

FOR COMPANIES INCLUDED, SEE APPENDIX

Dollar Totals in Thousands

Year	Total Assets	Fixed Assets	% Fixed Assets to Total Assets	Total Current Assets	% Current Assets to Total Assets	Year	Total Assets	Fixed Assets	% Fixed Assets to Total Assets	Total Current Assets	% Current Assets to Total Assets
Bread and Cake Division											
1920	$41,399	$11,688	28.3	$9,965	24.0	1927	$168,604	$100,782	59.8	$28,982	17.2
1921	49,845	20,453	40.9	14,070	28.2	1928	193,074	114,333	59.2	29,318	15.1
1922	57,460	22,846	39.7	15,422	26.8	1929	197,230	119,614	60.6	26,375	13.3
1923	65,016	33,839	52.2	15,550	23.9	1930	193,861	117,891	60.8	25,181	13.0
1924	68,490	35,375	51.7	16,559	24.1	1931	176,606	110,903	62.8	25,256	14.3
1925	176,860	94,860	53.6	48,313	27.3	1932	155,780	93,455	60.0	23,543	15.1
1926	171,794	100,031	58.2	37,728	21.9						
Cracker and Biscuit Division											
1920	102,504	73,728	72.1	29,566	27.9	1927	146,862	97,347	66.3	43,808	30.0
1921	103,277	74,414	72.1	27,557	26.6	1928	164,755	105,104	63.8	51,008	30.9
1922	111,539	78,485	70.8	31,678	28.4	1929	182,547	114,251	62.6	56,745	31.1
1923	115,828	81,393	69.9	32,975	28.5	1930	188,374	116,405	61.8	60,288	32.0
1924	119,858	84,668	71.0	42,345	35.5	1931	188,402	121,047	64.2	55,457	29.4
1925	124,224	87,116	70.3	35,573	28.6	1932	182,740	118,026	64.6	53,630	29.4
1926	133,356	89,652	67.2	41,125	30.8						

NOTE: Bread and Cake Division includes two companies from 1920 to 1924 and four companies from 1925 to 1932; Cracker and Biscuit Division includes two companies from 1920 to 1925 and three companies from 1926 to 1932.

Source: Annual Reports of Companies.

EXHIBIT XXIX

COMBINED CURRENT POSITION OF SEVEN LEADING BAKING COMPANIES BY TWO MAJOR DIVISIONS

1920–1932

FOR COMPANIES INCLUDED, SEE APPENDIX

Dollar Totals in Thousands

Year	Total Current Assets	Cash and Equivalent	% Cash and Equivalent to Total Current Assets	Receivables	% Receivables to Total Current Assets	Inventory	% Inventory to Total Current Assets	Total Current Liabilities	Current Ratio	Net Working Capital
Bread and Cake Division										
1920	$9,965	$5,059	50.7	$1,305	13.1	$3,600	36.1	$2,623	3.8 to 1	$7,342
1921	14,070	9,036	64.2	1,740	12.3	2,863	20.3	3,792	3.7 to 1	10,278
1922	15,422	8,540	55.3	1,861	12.0	4,566	29.6	3,501	4.4 to 1	11,921
1923	15,550	9,956	64.0	1,617	10.4	3,470	22.3	3,703	4.2 to 1	11,847
1924	16,559	11,674	70.5	1,446	8.7	3,243	19.5	4,192	4.0 to 1	12,367
1925	48,313	28,655	59.3	7,724	15.9	9,878	20.4	10,708	4.5 to 1	37,605
1926	37,728	16,185	42.9	9,489	25.1	10,612	26.9	12,606	3.0 to 1	25,123
1927	28,982	14,939	51.5	4,031	13.9	8,971	31.0	9,773	2.9 to 1	19,209
1928	29,318	14,848	50.6	4,027	13.6	9,768	33.3	10,659	2.7 to 1	18,660
1929	26,375	11,535	43.7	4,021	15.2	9,773	37.1	12,854	2.0 to 1	15,867
1930	25,181	13,241	52.6	3,559	14.1	7,627	30.3	7,511	3.3 to 1	17,671
1931	25,256	16,273	64.4	2,759	10.9	5,547	21.9	7,058	3.5 to 1	18,109
1932	23,543	16,280	69.0	2,217	9.0	4,362	18.5	4,967	4.7 to 1	18,574
Cracker and Biscuit Division										
1920	29,566	6,335	21.4	7,764	26.2	13,465	45.5	5,416	5.5 to 1	24,150
1921	27,557	15,626	56.7	5,397	19.5	6,531	23.7	3,640	7.6 to 1	23,917
1922	31,678	18,691	59.0	5,284	16.6	7,700	24.3	4,978	6.4 to 1	26,700
1923	32,975	17,680	53.6	5,307	16.0	9,985	30.2	5,067	6.5 to 1	27,908
1924	42,345	15,603	36.8	5,985	14.1	10,754	25.4	5,780	7.3 to 1	36,565
1925	35,573	19,310	54.2	6,116	17.1	10.058	28.2	5,537	6.4 to 1	30.036
1926	41,125	20,705	50.3	6,676	16.2	11,305	27.5	7,463	5.5 to 1	33,662
1927	43,808	20,714	47.3	7,001	16.0	11,702	26.7	8,730	5.0 to 1	35,029
1928	51,008	21,999	43.1	9,511	18.6	13,529	26.5	8,829	5.7 to 1	42,178
1929	56,745	24,628	43.4	9,511	16.7	14,599	25.7	11,509	4.8 to 1	45,236
1930	60,288	27,697	45.9	9,579	15.8	14,127	23.4	11,602	5.2 to 1	48,687
1931	55,457	30,673	55.3	8,323	15.0	12.234	22.1	10,626	5.2 to 1	44,771
1932	53,630	33,158	61.8	6,186	11.5	12,127	22.6	9,855	5.4 to 1	43,774

NOTE: Bread and Cake Division includes two companies from 1920 to 1924 and four companies from 1925 to 1932; Cracker and Biscuit Division includes two companies from 1920to 1925 and three companies from 1926 to 1932.

Source: Annual Reports of Companies.

Asset Analysis

Because of the nature of the business, the bread division and, to a slightly lesser extent, the biscuit division have rapid stockturn rates on their finished products. A large part of the business is done for cash. On the other hand, the system of direct delivery requires the ownership of much delivery equipment and large-scale methods require heavy investments in machinery. As a result, fixed assets in both divisions, shown in Exhibit XXVIII constitute slightly more than 60% of total assets. Since 1925, there has been a slight upward trend in the bread division as funds acquired by security issues have been translated into plants and equipment. Conversely, current assets have declined both absolutely and relatively for the same reason. The biscuit division exhibits few changes over the past few years in either respect.

Current Position

The analysis of current position presented in Exhibit XXIX throws considerable light on the policies of the industry and indicates some interesting contrasts between the two divisions. When the decline in current assets of the bread division from 27.3% in 1925 to 13.0% in 1930, shown in Exhibit XXVIII is taken in conjunction with the figures for current liabilities in Exhibit XXIX the constant drain on working capital to finance plant expansion is very evident. In the five years between 1925 and 1929, while fixed assets rose from $94,000,000 to $119,000,000, working capital decreased from $37,000,000 to slightly under $16,000,000, and the current ratio dropped from 4.5 to 1 to 2.0 to 1. With the cessation of expansion in 1930, combined with sharply declining prices for raw materials, current liabilities fell from $12,000,000 in 1929 to slightly under $5,000,000 in 1932, a change sufficient to increase the current ratio to 4.7 to 1 in the face of more slowly declining current assets.

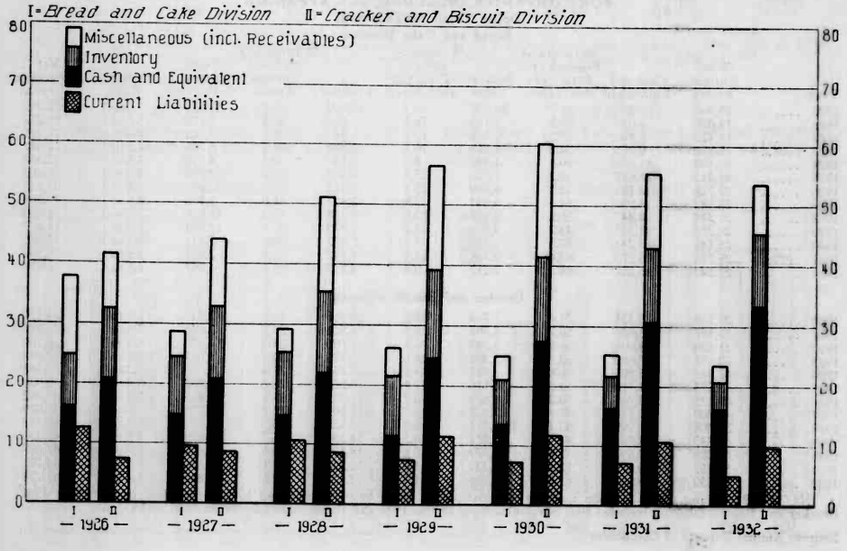
In 1932, cash and equivalent comprised more than two-thirds the current assets of the bread division; the years since 1925 show a number of variations but, in general, cash has remained above 50%. Receivables, primarily arising from sales to such large buyers as chain stores, hotels, and restaurants, have never been large and have recently declined markedly. The danger of heavy losses on receivables is clearly negligible; a speculative policy in the purchase of materials, however, may seriously affect net profit. Inventories have fallen appreciably, from 37.1% of current assets in 1929 to 18.5% in 1932, and undoubtedly have resulted in some losses.

EXHIBIT XXX

COMBINED CURRENT POSITION OF SEVEN LEADING BAKING COMPANIES BY TWO MAJOR DIVISIONS

1926–1932

Unit: $1,000,000



The same general tendencies are observable in the biscuit division, but the magnitude of the changes has been less. It is of interest to note that the biscuit companies were heavily laden with inventories in 1920, and that they immediately increased their cash; since that time, extreme caution has characterized the financial policy of the division.

APPENDIX

REPRESENTATIVE COMPANIES IN THE BAKING INDUSTRY

Bread and Cake Division

American Bakeries Corp.
  Listed: New York Curb Exchange (Preferred and Class "A" Stock)
Continental Baking Corp.
  Listed: New York Stock Exchange
General Baking Company
  Listed: New York Stock Exchange
Liberty Baking Corp.
  Listed: New York Curb Exchange (unlisted trading privileges)
Purity Bakeries Corp.
  Listed: New York Stock Exchange
Ward Baking Corporation
  Listed: New York Stock Exchange

Biscuit and Cracker Division

Loose-Wiles Biscuit Company
  Listed: New York Stock Exchange
National Biscuit Company
  Listed: New York Stock Exchange
United Biscuit Company of America
  Listed: New York Stock Exchange

BAKING INDUSTRY STATISTICS

1849–1931

Dollar Totals in Thousands

Year	Number of Establishments	Number of Wage Earners	Value of Raw Materials	Value Added by Manufacture	Total Value of Products
1849	2,027	6,727	$8,367	$4,927	$13,294
1859	1,930	6,514	10,634	6,346	16,980
1869	3,550	14,126	22,212	14,696	36,908
1879	6,396	22,488	42,612	23,213	65,825
1889	10,484	38,841	72,508	55,914	128,422
1899	14,836	60,192	95,052	80,317	175,369
1904	18,226	81,278	155,989	113,594	269,583
1909	23,926	100,216	238,034	158,831	396,865
1914	25,963	124,052	274,257	217,636	491,893
1919	*25,095	141,592	713,239	438,657	1,151,896
1921	20,173	148,500	598,615	491,358	1,089,973
1923	18,739	162,613	574,520	548,386	1,122,906
1925	17,684	160,411	668,017	600,178	1,268,195
1927	18,129	171,995	693,236	701,464	1,394,700
1929	20,785	200,841	737,100	789,011	1,526,111
1931	17,714	183,000	504,110	685,118	1,189,288

*Of the decrease between 1919 and 1921, 3,452 was due to a change in classification whereby establishments with sales of less than $5,000 were omitted.

Source: United States Department of Commerce—Census of Manufactures.

RELATIVE IMPORTANCE OF BRANCHES OF FOODSTUFFS INDUSTRY ACCORDING TO POOR'S CLASSIFICATION BASED ON 1930 CENSUS

000 omitted

Industry	Value of Products Amount	Value of Products % of Total	Value Added By Manufacture Amount	Value Added By Manufacture % of Total	Average No. of Wage Earners Number	Average No. of Wage Earners % of Total
All food products industries	12,023,589	100.0	3,399,306	100.0	753,247	100.0
Meat packing	3,564,815	29.0	483,822	14.0	130,274	17.0
Bread and other bakery products	1,526,111	12.0	789,011	23.0	200,841	27.0
Dairy products, including ice cream	1,394,587	11.0	346,235	10.0	51,962	7.0
Flour & other grain mill products	1,060,269	9.0	191,397	6.0	27,028	3.0
Canning and preserving	831,191	7.0	315,889	9.0	112,478	15.0
Sugar producing and refining	795,643	6.6	189,605	5.7	32,241	4.3
Beverages and confectionery	663,594	5.4	345,375	10.3	91,789	12.2
All other	2,457,703	20.0	737,972	22.0	106,641	14.0

Source: U. S. Department of Commerce—Census of Manufactures.

The figures and data contained herein have been obtained from sources we believe to be reliable; the publishers do not, however, hold themselves responsible for their accuracy. All opinions are presented as such, without guarantee as to their correctness. This study is released as of June 21, 1933.

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